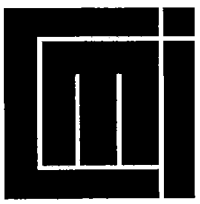
Constraints for a Conservation-Based Agricultural Development Policy in Ethiopia

A Baseline Study in Fedis Awraja

Fantu Cheru

D 1992: 7



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Bergen, September 1992. 37 p.

Summary:

A baseline survey was conducted in the Hararghe region in Ethiopia in 1989 to identify constraints to agricultural production and environmental protection measures. The survey included not only agricultural support services, but also people's assessment of rural institutions, the rural energy crisis, environmental constraints and community participation. In the concluding chapter, the author gives his assessment of an alternative strategy which avoids the identified constraints by putting the peasants in the centre of attention and supporting their efforts with integrated institutional and material support services.

Sammendrag:

En undersøkelse ble gjennomført i Hararghe-regionen i Etiopia i 1989 for å identifisere hindringer for tiltak for å styrke landbruksproduksjonen og bevare naturmiljøet. Studien omfattet ikke bare støttetiltak til landbruket, men også folks oppfatning om lokale institusjoner, miljøbegrensninger, energimangelen, og allmenn deltakelse i planleggingen. I sluttkapitlet gir forfatteren sitt syn på en alternativ strategi som unngår de flaskehalser som studien viste, ved å rette oppmerksomheten på bøndene og støtte deres initiativ og tiltak med et integrert institusjonelt og materielt støtteprogram.

Indexing terms:	**Stikkord:**
Energy crisis	Energikrise
Environmental protection	Miljøvern
Agricultural policy	Landbrukspolitikk
Women	Kvinner
Ethiopia	Etiopia

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Foreword

This report builds on a baseline study conducted in 1989 by Fantu Cheru in the Awraja of Fedis, Eastern Hararghe, in Ethiopia. The study was financed by the United Nations Sudano-Sahelian Office (UNSO), and was part of a preparatory process for planning a reforestation programme in Hararghe region, particularly in the area around the towns of Harar and Dire Dawa. UNSO had already financed some other reforestation projects, near the towns of Nazareth in Southern Shoa and Debre Birhan in Northern Shoa, mainly aiming at supplying fuelwood for these towns without depleting the last remains of natural forests in the surroundings. But the two projects faced difficulties with the local communities. Peasants seemed unconvinced about the value of the eucalyptus plantations, and resented the fact that their grazing land had been taken for reforestation. Even generous social programmes offering local communities help in building schools, water and other facilities did not eliminate the peasants' resentments against the plantations.

This, probably, was the background for UNSO to engage in a social baseline survey before new similar projects were to be started. The report from the survey was submitted to UNSO in 1989. But the author wished to make the material collected available for a wider interested circle. When the Chr. Michelsen Institute offered him the opportunity, he spent some weeks in December 1991 in Bergen to complete this report for a wider public.

In the meantime, conditions in Ethiopia had changed considerably. The Mengistu government collapsed in June 1991, and a new government was planning for a democratic development and a new economic policy. This situation naturally coloured Fantu Cheru's presentation in this report, especially the concluding chapter which tries to put the findings of this baseline survey into a context of Ethiopia's new start, reflecting his view on how to create an enabling environment for agricultural development.

Convinced that the information contained in this report is important especially in a period where major decisions on the future course of development policies in Ethiopia has to be decided, the Chr. Michelsen Institute makes the report available to researchers and the general public.

Bergen, September 1992

Siegfried Pausewang

Introduction

The performance of Ethiopian agriculture has been disappointing since the 1974 revolution. Prior to the revolution, the feudal land tenure system that existed was cited as the major cause of agricultural stagnation and ecological degradation. It was obvious that some form of land reform was necessary to eliminate the ill-effects of the pre-revolutionary agricultural system. Fundamental change was brought about in Ethiopian agriculture through enactment of the "Public Ownership of Rural Lands Proclamation" of April 29, 1975 (Negarit Gazeta No. 26, 1975). The proclamation outlawed private ownership of land and tenancy. All the land was to be held by the Peasant Associations which were to give peasants user rights based on family size. The maximum size of land allowed to each peasant family is 10 hectares.

The demise of Imperial rule and abolition of feudalism, however, did little to change peasant perceptions about central government directed development initiatives. Forced villagization after 1979, excessive taxation through the Agricultural Marketing Corporation (AMC), forced conscription of peasants to the army, lack of tenure security and inadequate support for farmers had been the major impediments to agricultural production and resource conservation.

This report is based on a baseline survey conducted in Fedis Awraja, Eastern Hararghe Administrative Region, between August 13 and 26, 1989, a month after the failed coup which jolted the foundations of the Mengistu regime. Although the government introduced piece meal reforms before and after the coup to revive agricultural production in the country, the reforms were too little and too late to reverse the general resignation of the peasantry. The conclusion of this study is that, despite the rhetoric of the government on the importance of the peasantry in socialist agriculture, it concentrated its investment policy on establishing large-scale mechanized state farms patterned after the East European model, and operated on strict production schedules that required accurate planning. Between 1976 and 1980, the Mengistu regime imported thousands of tractors costing millions of dollars from Eastern Europe. The underlying assumption was that large-scale, capital-intensive production would enable the country to increase food production and foreign exchange earnings in the shortest amount of time. This unquestioned assumption that modernization and mechanization were synonymous was a critical mistake. A high degree of dependency on imported inputs and technology soaked up virtually all government investment in agriculture while small peasants were left to fend for themselves.

Long before the drought of 1983 hit Ethiopia, there was ample evidence that the state farm approach had failed. Still, the government of Ethiopia pushed for more, not less, emphasis on state farms. The recurrent expenditure for expanded state farming was met by extracting more resources from the peasantry in the form of low producer prices for their crops and a mandatory quota whereby the peasants were required to sell a quarter of their output through the Agricultural Marketing Corporation (AMC). Peasants were also forced by local authorities to contribute to national and local campaigns, which simply increased their tax burden. In some cases, peasants had to sell their assets, such as cattle, to pay for these contributions or to meet grain delivery quotas.

In short, the policy of land reform by itself was inadequate to stimulate agricultural production in Ethiopia. There were other factors that constrained peasant output and resource conservation: lack of incentives such as remunerative pricing, access to credit, fertilizers, extension, transport, marketing policies and access to social services. As long as these services are missing, it is unlikely that peasant output will increase and ecological degradation be arrested. The result from the baseline survey confirms this conclusion.

Sampling and data collection

The population of Fedis Awraja, like those in other parts of the country, have been organized under peasant associations and reside in villages up to 300 households. In the Awraja, there were 54 peasant associations at the time of the survey. Two sets of questionnaires were administered: a socio-economic and biomass survey; and an assessment of the role women in development. A multi-stage intensive sampling technique was employed. At the Awraja level, 10 per cent of the Peasant Associations (PA) were selected at random. At the PA level, 5 per cent of the households were sampled, the number of household sampled in each PA depended on its size. For the socio-economic and biomass survey, 115 households were surveyed. Because of logistic problems, the women and development questionnaire was administered separately. This meant sampling 2.5 per cent of the women in the six Peasant Associations randomly chosen for the first survey. A total of 59 women were asked to respond to the questionnaire.

A total of 10 enumerators, who speak the Oromo language, were hired. The enumerators were 4 male and 6 female high school students. Four groups were organized in a pair of two, a male and a female, assisted by a supervisor seconded from the local Ministry of Agriculture office. The supervisors are the subject matter specialists attached to the Awraja office of the MOA. The fifth group, whose primary task was to conduct the women and development survey, included two female students. The survey took 12 days to complete.

Table 1
Sample size of peasant associations

Zone	PA	No. of households	No. sample households	No. of women
Genna	Genna	218	11	8
Eftu	Lencha	237	11	4
Belina	Belina	213	11	5
Fetchatu	Berida	278	28	14
Bobassa	Chechebisa	372	18	10
Medega	Robi	617	36	18
Total sample		1935	115	59

1. The social history of land and state-peasant relations in Hararghe region

Until 1975, land tenure in Hararghe region was predominantly feudal and owner/tenant farms were relatively common. This system of tenure was introduced when Hararghe was incorporated as part of greater Ethiopia in the late 1800 when Amhara kings from the highlands conquered the territory. The Oromo, the predominant ethnic group in this region, were subjected to heavy taxation and compulsory unpaid labour by their landlords. In addition, over a quarter of their agricultural output went directly to the landlord. Since expulsions were common for non-compliance, farmers had to work extra hard to meet their quota and their own food requirements.

With Italian occupation of Ethiopia, the feudal like tenancy disappeared temporarily. After the war, however, feudal land tenure practices reappeared under the guise of private ownership, and the Oromo, once again, became tenant farmers. The success of commercial farming in the adjacent provinces of Arsi and Bale further intensified the scramble for land by wealthy landlords from the northern highlands. Consequently, this system of tenancy contributed to agricultural stagnation and environmental disruptions.

After World War II, Emperor Haile Selassie began granting tracts of land to retired soldiers from the highlands who volunteered to resettle in the Hararghe region. To extend Imperial rule, northern highlanders were sent here as governors and emissaries of the Emperor. With the ever growing threat to Imperial rule from Somali nationalists in the 1960s, more highlanders were settled around Gursum in the east and the Garamuletta mountains in the west. With the complete imposition of Amhara rule, resentment grew under the surface. The demise of Imperial rule and the abolition of feudalism in 1975, however, did little to change the peasants' perception of central government directed development initiatives. Forced villagization after 1979 and fear of being resettled somewhere else, again disrupted agricultural production and proper management of natural resources as farmers felt less compelled to grow trees or build terraces on the farm their were working on.

1.1 Description of project area

Fedis Awraja is situated in Eastern Hararghe region, 500 km. east of Addis Ababa and 24 km south of the town of Harar. The vast majority of the population is Oromo. They are predominantly Muslims although a few Christians can be found among them. Population density relative to cultivable land is very high in all the

54 Peasant Associations and the average family is about 5. Only 3 per cent of the population surveyed can read and write. The other 97 per cent are illiterates.

Annual rainfall ranged between 300 and 800 mm in the years from 1981/82 to 1988/89. The average monthly rainfall ranges between zero in December to around 200 mm in April. Most of the rain falls between March and September. The remaining months are relatively dry. The growing period is around 120 days. It is therefore near to a marginal land for crop production.

Soil erosion problem

The consequences of deforestation and soil erosion can be seen in the form of serious shortages of wood for both fuel and construction, declining agricultural output due to loss of soil fertility, making the Awraja a chronic food deficit area. Vast areas of land are washed out, forming huge gullies that can be seen from every direction. Whatever trees were available to protect the soil were cut during the villagization campaign to construct new settlements. Since the Hararghe region was the first area where the villagization programme started, peasants had stopped growing trees for fear of being moved again.

The lack of fuelwood and fodder has also compounded the problem. The vast majority of peasants use agricultural residues for fuel, for constructing huts and to feed their cattle. This deprives the soil of nitrogen, while accelerating the process of wind erosion because of the removal of vegetation cover.

1.2 Description of the farming system

Agricultural practices

The farming system in the Awraja is traditional. Most of the peasants own one or two drought oxen which they employ in cultivating. Weeding is done manually and it is thorough. Cultivation is primarily the responsibility of men. Women are responsible for household work which includes fetching water and fuelwood, marketing of agricultural produce. Occasionally, they help weed the field and store crops after harvest. As will be shown later, chemical fertilizers, pesticides and improved seeds are rarely used by the peasants in the region.

Sorghum is the most important crop in the region because of its multi-purpose use. While the grain meets the food requirements of the peasants, the leaves are used for fodder and the thick stalks for construction and fencing.

Land availability

According to the 1975 Land Proclamation, each peasant is entitled to land for his own use, up to a maximum of 10 hectares. The baseline survey reveals that the average cultivated land per household in the awraja ranges between 1.5 to 2 hectares. Although each PA is supposed to have 800 hectares of land in theory, the average cultivated land relative to total land available for each PA is very low. With an average family size of 5, there is practically no land left for grazing or growing trees on individual farms. Therefore, agricultural land is exhausted and the scope to rotate with legumes is nearly nonexistent. Crop residues are used for fuel, house construction and animal feed. Thus, there is not much organic fertilizer left, except some animal waste, to rehabilitate the soil.

Table 2
Average landholding and pattern of land-use
(in hectares per family)

PA Name	Total land	Cultivation	Grazing	Forest
Genna	1.1	1.1	-	-
Lencha	1.5	1.4	0.1	-
Belina	1.5	1.5	-	-
Berida	2.0	2.0	-	-
Chechebisa	1.0	0.8	-	0.2
Robi	1.5	1.5	-	-

Source: Compiled from baseline survey.

Problems of livestock production

Besides crop cultivation, livestock keeping is an important economic activity in Fedis Awraja. In general, cattle, sheep and goats are major sources of cash for peasants. Cattle provide crucial inputs for crop production, like manure and draft power, as well as milk for children. However, the survey found out uneven distribution of draft animal among peasants. Most farmers own only a single ox and this is known to disrupt planting and cultivation schedules. Donkeys and camels are the only source of transportation of agricultural goods to the market given the lack of road transport.

On the basis of the baseline survey, interviews with the executive committee members of six peasant associations and reconnaissance to selected PAs, the estimate of average cattle holding per household is probably not more than 2.5. Lack of fodder and grazing land is the number one problem peasants identified in

the survey. The fact that they depend on a cut and carry system indicates that they cannot keep large numbers of animals on their farms.

Table 3
Planned and completed veterinary activity at the
Eftu Development Centre, 1979/80 E.C.

Type of service	Planned	Completed
Antracs/black leg vaccination	10,000	1,600
Other vaccination	3,000	15
Parasite vaccination	3,000	4,135
Gendi	400	15
Training:		
Animal husbandry	3	15
General veterinary	3	15

In addition, livestock production is constrained by lack of access to veterinary services. The existing veterinary service, with only one veterinary doctor, is inadequate to serve the entire awraja of 54 peasant associations. Planned vaccination targets are rarely met for lack of vaccine and trained personnel. Subject matter specialists assigned to the Awraja are often overburdened with such tasks as tax collection and dispute settlements which have little to do with their profession. The only available vehicle assigned to the Awraja MOA office was being used by central administration in the provincial capital. Extension agents and subject matter specialists did not even have access to a bicycle.

2. Constraints to agricultural production: The policy dimension

2.1 Lack of inputs and weak extension

One of the major impediments to improved agricultural production in the Awraja is the lack of government support to peasant farmers. Inadequate extension and training, credit services, lack of agricultural inputs and price incentives have had a negative impact on agricultural production.

The sampled population were asked to identify the major reasons why they do not use chemical fertilizers on their farm. Some 64 per cent of the respondents identified lack of money or credit as the major constraint while 18 per cent complained that supplies are not available in their respective service cooperatives. Only 2 per cent said that they do not know the use of chemical fertilizers.

Table 4
Use of fertilizer and improved seeds

Reasons for not using chemical fertilizer		
	(N=115)	Per cent
Don't know about it	2	2
Not available here	21	18
Lack of money	74	64
Reasons for not using improved seeds		
	(N=115)	Per cent
Don't know about it	6	5
Not available in SC	35	30
Lack of money	67	58
Other	1	1

A similar response was given with regard to the use of improved seeds. When asked why they do not use improved seeds, 58 per cent of the respondents said they do not have money to purchase seeds. Another 30 per cent complained that supplies are not available at the service cooperatives. Only 5 per cent of the respondents said that they do not know about its use.

The conclusions that can be drawn from the above information is that the service cooperatives in Fedis Awraja are not doing their job. The reasons for this has to do with the fact that only 8 of the 18 service cooperatives are licensed to borrow money from the Agricultural and Industrial Development Bank which enables them to purchase inputs in large volumes and to extend credit to their members. The remaining 12 service cooperatives do not have the capital to expand their services to their members. It is not surprising, therefore, that peasant output has persistently been declining due to lack of access to essential inputs.

Weak extension service

Most government services in Fedis are far from being efficient and reach only a fraction of the peasantry. These services are also more concentrated in accessible areas than remote areas of the district. Demonstration plots are non existent or far from the peasants. Since there are only 4 development agents serving the 54 peasant associations, training of peasants in agricultural production and soil and water conservation measures is inadequate.

Table 5
Peasants and agricultural extension

	(N=115)	Per cent
MOA Agent in the PA?		
Yes	22	19
No	93	81
Total	(115)	(100)
Last visit by DA:		
Never	104	92
1 month ago	5	4
3 months ago	4	4
Total	(113)	(100)
Last visit to demonstration ctr:		
Never	109	97
Last year	3	3
Total	(112)	(100)

The sample survey highlight the extent of the problem. Only 19 per cent of respondents reported the existence of an extension agent near their village. The majority, or 81 per cent of the respondents, said that they do not have an extension

agent near their village. Among the respondents, 92 per cent reported that they have never been visited by an extension agent. When asked if they ever visited a demonstration centre, almost 97 per cent of the respondents reported that they have never been to one.

The above information is consistent with actual reality. There are only 4 extension agents in the Awraja serving all the 54 peasant associations. The Awraja office of the Ministry of Agriculture has only one vehicle in a region which is completely inaccessible. Although the office is supposed to have subject matter specialists (i.e. veterinary, forestry or soil and water conservation), the existing staff are poorly trained and overburdened with other tasks.

2.2 Marketing, transport, and services

Experience from other countries shows that, for peasants to increase agricultural production and preserve the natural resource base, there must be in place an efficient marketing, storage and transport system. To the extent that these important services are absent, peasants will not be compelled to produce more or to adopt conservation measures on the land.

Accessibility

One of the impediments to marketing of agricultural goods is the lack of transport. A one time all-weather road built 15 years ago connects the awraja capital, Boko, to Harar city. Currently there are 2 Land rover taxis serving the region, each making about two trips a day due to the fact that the access road is in a very bad shape. Some parts of the road are completely destroyed and are difficult to pass through, especially when it rains. As a result, the majority of farmers are unable to take their goods to the big urban centres where they can fetch better prices. Instead, they are forced to market only a portion of their goods at the village level or the nearest market centres at below market prices in order to purchase necessary items as matches, salt and oil.

On the average, peasants walk 6 km from their villages to reach the market. When asked what mode of transport they use to transport goods to the market, 52 per cent of the respondents said they use donkeys while 89 per cent reported that they carry the goods themselves to the market. The data further reveals that 83 per cent of the 63 people who responded go to the market once a week. Only 17 per cent of the 63 respondents said that they go to markets twice a week. It is clear from the above data that lack of transport is an important disincentive to increased agricultural production in rural Fedis.

Table 6
Marketing practices

	Frequency	Per cent
Goods marketed:		
Sorghum	88	47
Maize	25	14
Onions	72	39
Total	(186)*	(100)
Channel used:		
Open market	97	85
AMC	14	12
SC	4	3
Total	(115)	(100)
Transport mode:	(N=115)	
Donkey	60	52
Carry self	102	89
Go to the market:	(N=115)	
One a week	52	45
Twice a week	11	10

* multiple response.

Lack of markets and price incentives

The most important agricultural goods marketed by peasants are sorghum (47%), onion (37) and maize (14), in that order. When asked what channels they use to market these goods, 85 per cent of the respondents reported to have used the free market while another 12 per cent used official channels such as the Agricultural Marketing Corporation (AMC). What this implies is that, because AMC prices are controlled by the government and below market prices, peasants try to avoid the official channels in as much as possible. Such practice is so widespread in Fedis that officials close down the entrances to the awraja town of Boko daily at the close of the market day to collect taxes from peasants.

Table 7
Supplies procurement

	Frequency	Per cent
Goods purchased:		
Grain	65	24
Oil	36	13
Salt	114	41
Sugar	17	6
Coffee	21	8
Chat	22	8
Total	(275)*	(100)
Source:	(N=115)	
SC	34	23
Open market	113*	77
Type of payment:		
Cash	114	96
Credit	5	4
Total	(119)*	(100)

* multiple response.

Almost all the goods purchased by the peasants is primarily consumer goods, with salt and grain accounting 41 and 24 per cent of the goods consumed respectively. When asked where they procure supplies, 98 per cent of the respondents said from the open market. Only 29 per cent purchase their supplies from the service cooperatives. With respect to type of payment, 96 per cent involve cash while only 4 per cent is made in credit. What these figures imply is that the majority of peasants are forced to purchase their goods from merchants at exorbitant prices. The service cooperatives are poorly stocked or carry goods not wanted by the peasants. Even though the service cooperatives sell relatively cheaper than the open market, they can not satisfy the peasants' needs.

Lack of storage facilities

Another factor which constrains agricultural marketing in the area is the lack of storage facilities. In addition to post-harvest losses, peasants end up losing a significant amount of the crop they harvested to pests and insects. The traditional method of storing grain under ground in a hole has proved to be detrimental since the grain is destroyed either by humidity or is eaten up by ants.

While much of the grain produced in the awraja is consumed by the peasants themselves, the lack of storage facilities affects particularly the marketing of onion, the major cash crop of the awraja. The combination of inadequate transport system and storage facility limits the capacity of peasants to make money from the sale of onions. While a quintal of onion (100 kilos) can fetch up to 65 Birr in Harar town, the same quintal of onion can barely fetch 20 Birr in Boko, the awraja capital.

The awraja had the potential for growing Chat for export to such markets as Djibouti and Somalia. Unfortunately, this potential has not been realized since the marketing of Chat requires a very good and efficient transport system. Chat leaves are harvested daily and must be consumed fresh. Because of transport limitations, whatever Chat produced in the awraja is consumed locally.

Lack of non-farm employment

All the peasants surveyed reported that rural non-farm activities, such as beekeeping, carpentry or weaving do not exist in the awraja. One reason for this is the lack of credit to farmers. Despite the establishment of the Handicrafts and Small Scale Industries Development Authority (HASIDA), rural entrepreneurs and crafts people are neglected. As a matter of policy, the Authority operates in urban areas only. Peasants are expected to work in agricultural production only. Their potential in other non-farm activities is not recognized. Since they are not given legal recognition, they do not have access to credit either from the Commercial Bank of Ethiopia or the Agricultural and Industrial Development Bank.

The Government ought to develop and implement appropriate policies so that rural cooperatives within PAs/SCs engaged in handicraft and specialized activities can gain credit and other forms of support.

2.3 Inadequate social services

Fedis Awraja received little government attention in the way of development since the brief Somali occupation of the region in 1978. The infrastructure, particularly roads, have been in a state of disrepair and agricultural extension, education, health and other services have also been neglected. Schools, clinics, flour mills and other social services are in short supply. It would not be wrong to conclude that the area has suffered from a deliberate policy of "benign neglect".

1. Health facilities: The whole awraja, with a population of 100,000, is served by a total of five clinics and most of the population have to travel long distances to get to these centres. Communicable diseases, such as fever, respiratory infection and skin infection, are widespread. The existing facilities are often overcrowded and basic medical supplies are not available.

2. Water supply situation: The permanent surface water system for the entire awraja consists of two watershed systems, one forming the western boundary, the other the eastern boundary of the Awraja. This system provides water for both humans and animals who live close by. But the majority of the people who live far from the permanent surface water sources, uses rain water collected in communally constructed water ponds. The ponds are in general simple depressions with rarely any improvement to reduce losses from infiltration. As a result, most of them retain water for only a short period, one to two months a year. After the rains, the communities have to seek water from elsewhere, usually far away from their homes, and on the average a 6 hours' walk round trip.

Ground water supply is poor. At the time of the survey, 15 wells have been sunk at different locations of the Awraja by Catholic Relief Services and the government's water exploration agency. The experience is not encouraging. The water level ranges between 150 to 230 meters, and the cost of drilling is exorbitant. Besides, the supply of water from the wells is relatively low.

3. Educational opportunities: Like the rest of Ethiopia, access to educational opportunities is limited to the residents of Fedis Awraja. Schools and qualified teachers are in short supply and the quality of education and infrastructure has deteriorated significantly over the past 17 years. Female enrolment lags far behind male enrolment. Given the relative backwardness of the Awraja, few peasants could afford to send their children beyond 8th grade. It is the female students more than the male who will most likely be forced not to pursue higher education.

4. Flour Mills: One important social service not adequately provided in the Awraja is flour mills. At the time of the survey, there were only four mills serving 54 peasant associations. One reason why there are few mills has to do with the fact that only the service cooperatives, depending on their financial position, can establish flour mills. Only 8 of the 18 service cooperatives in the Awraja were licensed to borrow money from the Agricultural and Industrial Development Bank to establish mills and undertake other development tasks. Since the unlicensed cooperatives have no other source of financing, they are unable to provide service to their members. In addition, the restriction on private ownership has exacerbated the paucity of services. In rural Ethiopia, owning a mill used to be a lucrative business.

In summary, the policy of land reform has failed to stem agricultural decline and resource depletion since the government lacks the resources to upgrade infrastructure and social services. Inadequate marketing, storage facilities and weak extension systems have constrained agricultural production and proper management and utilization of natural resources.

3. Assessment of rural institutions

The 1975 revolution profoundly changed not only land tenure relations, but also social relationships and introduced new rural institutions throughout the country. Subsequent proclamations gave legal definition to Peasant Associations and extended their functions to include the establishment of cooperative societies, women's and youth associations (Proclam. No. 75/1975). In theory, the people, through their respective Peasant Associations, are supposed to administer their own affairs and participate directly in the political, economic and social movement. Therefore, the PAs were given broad functions including the administration of public property to establish service cooperatives and to build schools and health centres.

Unfortunately, peasant associations have so far not been able to encourage local initiatives and translate them into tangible actions. While most of the PAs suffer from poor leadership quality, they are also burdened with the responsibility of enforcing directives coming from the central government. This has contributed to peasant perception of the PAs as an extension of the central government.

3.1 Peasant associations

Fedis Awraja has 54 peasant associations with a total membership of 18,930 households, or 91,531 people. All rural residents above 18 years of age are members of the peasant associations. There are variations in the number of households from one peasant association to another. For example, within the PAs in our sample survey, the Belina peasant association reports 617 households as members. In addition, there are variations in the size and fertility of land available to each peasant association. Although all PAs are supposed to have 800 hectares of land, some have less while others report land holdings in excess of 1000 hectares.

When asked if they are satisfied with the performance of the Peasant Associations, 69 per cent of the respondents said they are satisfied considering the unreasonable demand put on the PAs from the central government. Another 31 per cent said they are not happy with peasant associations. The reasons for significant levels of dissatisfaction has a lot to do with poor leadership competence of peasant officials and their inability to put into action initiatives coming from the members. Peasant leaders are illiterates or poorly trained to administer their area and initiate development activities. Although different committees are set up within each peasant association for purposes of administration, these responsibilities are poorly

coordinated and committee members can seldom discern their specific assignments. This leads to confusion and delay, further alienating the membership.

Table 8
Peasant's view of PAs

	Frequency	Per cent
Satisfied?		
Yes	79	69
No	36	31
Total	(115)	(100)
Ideas listened to?		
Always	23	20
Sometimes	55	48
Never	37	32
Total	(115)	(100)

Source: Compiled from baseline survey.

When asked if their ideas are listened to by the executive committees of the peasant associations, a mere 20 per cent responded in the affirmative. Another 48 per cent of the respondents said that their ideas are listened to sometimes. Almost a third (32%) of the respondents expressed that their ideas are never considered by the leaders of the peasant associations. The low level of response in the affirmative indicates that the peasant associations suffer from serious leadership crisis and that decision making tends to be top-down rather than participatory. As appointments to the Executive Committees have become political, chair persons display dictatorial tendencies in order to build their authority.

Producer cooperatives

As an outgrowth of the 1975 land proclamation, two types of rural cooperative institutions play an important role in rural Ethiopia. Although the initial aim of these institutions has been to empower the peasants so that they can solve their own local problems, the effectiveness of these institutions has been quite disappointing for reasons outlined below.

Producer cooperatives (PCs) are established voluntarily by peasant associations. They are essentially collective farming units and the members are paid according to the quality and quantity of their work. Despite official rhetoric of the

importance of small farmers in rural development, the government gives preferential treatment to the producer cooperatives in the provision of fertilizers, oxen, credit and better prices for crops. Despite all this, producer cooperatives have failed miserably to attract farmers and to raise agricultural productivity. Poor leadership and the inability of the PCs to motivate farmers is one reason. In some areas, PCs operate in the same way the traditional feudal lords operated by exacting resources from their members rather than improving their economic lot. Consequently, peasants have begun to withdraw from membership in the producer cooperatives.

In Fedis Awraja, there are a total of 11 producer cooperatives serving only 491 members. All the 11 cooperatives exist only on paper since they do not meet the minimum criteria for official registration with the Ministry of Agriculture. Furthermore, the government's agricultural policy focuses on 148 surplus producing districts. Since Fedis is a chronic food deficit area, extension agents are in short supply and the distribution of inputs such as fertilizers, training and credit are inadequate. This explains why the producer cooperatives in the Awraja are weak and dysfunctional despite the fact that they get preferential treatment from the government.

Fedis farmers we talked to informed us that they are experiencing large numbers of defections from the cooperatives. If the trend continues, most of the PCs in Fedis will cease to exist in the next year or so. The demise of PCs in Fedis and the rest of the country will be accelerated if and when the government announces the long-awaited proclamation regarding tenure and ownership.

Service cooperatives

Unlike the producers cooperatives, service cooperatives were generally liked by the peasants. They are primarily a channel for marketing and procurement of agricultural goods, inputs and other consumer goods. SC's can also build flour mills, extend credit to their members and promote cottage industries whenever feasible. Usually, three or more peasant associations can establish a service cooperative and the individual farmers pay a nominal membership fee of 10 Birr.

There are 18 service cooperatives in Fedis Awraja and only 8 are licensed, meaning that they have access to a line of credit from the Agricultural and Industrial Development Bank (AID Bank) to expand their operations. The rest of the cooperatives which the mission visited are extremely weak and are not in a position to provide the necessary agricultural implements and consumer goods to their members. As Table 9 below shows, only 36 per cent of the respondents expressed that they are satisfied with the services of the service cooperatives. The remaining 64 per cent indicated their dissatisfaction with service cooperatives.

Another indicator of peasant dissatisfaction with the service cooperative is the frequency of usage. The survey data indicate that 45 per cent of the respondents never use the SCs. Only 8 per cent of the respondents always use the service cooperatives. Another 47 per cent reported that they often go to the cooperative. This latter view is not surprising given the lack of alternative sources for supplies.

When asked to identify reasons for not using the SCs, 50 per cent said that supplies of consumer goods such as salt, sugar, soap, and farm inputs are not available when they need them. Peasants complained that the most needed items are often sold out while unwanted commodities are always available. Peasants also pointed out the fact that agricultural inputs such as seeds and fertilizers are never delivered on time during the planting season. And when the supplies are available, they are normally of the wrong type and of poor quality. Another 49 per cent said that they could not use the SCs because of lack of credit to purchase agricultural implements.

Table 9
Peasant's view of service cooperatives

	Frequency	Per cent
Satisfied:		
Yes	42	36
No	74	64
Total	(116)	(100)
Use SC:		
Always	9	8
Often	49	47
Never	48	45
Total	(106=	(100)
Reason for not using SCs:	(N=115)	
Supply not available	58	50
Credit not available	55	49
Too far away from PA	8	7
Don't know their use	34	30
Sell goods to merchants	4	3

Source: compiled from base-line survey.

Some managers of service cooperatives I talked to pointed out that most of the service cooperatives in the awraja have their working capital tied up on unwanted items. The central shop, the Ethiopian Distribution and Delivery Centre (EDDC), often forces cooperatives to buy unwanted items such as shampoo and facial creams together with other needed items so that unwanted stocks can be cleared. As a result, commodities have piled up in service cooperative shops over the years. In Bisidimo, for example, the Selama service cooperative has in stock items such as khaki fabrics, leather shoes and umbrellas dating as far back five years ago while its shelves are bare of needed consumer goods. Peasants are, therefore, forced to purchase goods from local traders at exorbitant prices.

Non-formal social organizations

Despite the existence of formal organizations such as peasant associations and service cooperatives, peasants in rural Fedis still maintain a strong attachment to traditional mutual-aid associations and labour groups to improve their economic and social conditions. The reasons why these traditional institutions continue to thrive are many: they are dependable and cost effective when compared to the formal institutions such as the peasant associations and producer cooperatives. For example, in the women and development survey, 76 per cent of the respondents reported that traditional associations focus more on women's issue than the formal women's associations. Peasants still feel that formal institutions do not represent their needs but tend to enforce directives coming from the central government rather than mobilizing local initiatives.

As the result of this study points out, the Peasant Associations have largely been ineffective as a result of lack of resources and poor quality leadership. The PAs often expect the initiative to come from the central government and perceive their role to be one of transmitting decisions made elsewhere. Consequently, their potential as a means of revitalizing the rural community has not been fully realized by the peasants and their leaders.

4. Environment, planning and community participation

4.1 The real rural energy crisis

Wood, agricultural residues and cattle dung are the main sources of fuel in Ethiopia. In Fedis Awraja, 100 per cent of the total energy consumption in the households comes from biomass fuel. Based on our baseline survey, consumption by components worked out to 26 per cent firewood, 64 per cent crop residue and 2 per cent cow dung. Charcoal did not feature in the sample. The indication here is typical of rural situations in Ethiopia, but within a clear case of fuelwood scarcity which would normally be the preferred component.

Table 10
Proportion of the sample using different types of biomass fuels

Fuel type	Sample size	No. using	%
Fire wood	115	114	100
Crop residue	115	84	63.5
Fire wood and crop residue together	115	84	63.5
Fire wood alone	115	30	26.1
Crop residue alone	115	1	0.9
Charcoal	115	1	0.9

Nearly all the fuelwood consumed in the Awraja comes from within the area. Although 73% of respondents indicated they obtain wood from own land, a look at Table 1 indicates that supply from the cultivated fields would be negligible since there are no woodlots or natural bushes. 100% of the respondents indicated that most of the wood come from the few remaining bushes and shrubs and the degraded woodlands along the Gobele and Erer valleys (the commons). Table 18 shows the distance most farmers have to travel to get firewood:

Table 11
One way distances to fuelwood sources

PA	Range in km	n	Weighted mean km
Genna	< 1	11	0.5
Belina	5 - 10	11	7.5
Robi	1 - > 10	36	10.0
Berida	< 1 - 5	28	3.0
Chechebisa	1 - > 10	18	7.5
Lencha	5 - 10	11	7.5
		Weighed mean	6.5 km

From the above table, a round trip works out to 13 km which at a speed of 3 km an hour would take 4.3 hours, not counting collection time. This is valuable time which could be used on more productive pursuits and is an indication of the fuelwood shortage in the area. The responsibility for fuelwood collection rests with the mother (85%) although occasionally children and fathers (10%) help out.

4.2 Constraints to tree planting in the Awraja

Cultural beliefs and habits

The majority of the people in the target area are predominantly agriculturists and tend to attach little cultural taboos or rituals to trees. Discussion with several farmers on why they leave trees on croplands indicated that the primary reason was to provide shade during the heat of the day. They further elaborated that they prefer leaving *Acacia* species as they have learnt through experience that these species have no adverse effects on crops. It therefore appears that cultural beliefs and habits would not be a constraint to tree planting activities.

A more practical concern for the local population with respect to trees is that they compete with crops and also harbour grain-eating birds. These were cited as the main reasons why they leave only a few trees standing and also explained the widespread practice of lopping to reduce nesting facilities. This underlines the need for extension, particularly through demonstration of tree species that offer minimum competition and agro-forestry management techniques for application in the cropping system.

Inadequate seedling supply

Lack of seedlings, a factor related to extension, has also been a major constraint. The Awraja is currently served by only one MoA nursery which has had major production constraints, including water, transportation, and to some extent, management. According to the NRCDMD, a ratio of *one* tree nursery to *3 PAs* should be the target. The situation in Fedis of *one* to *54 PAs* is grossly inadequate.

Table 12
Reasons for not planting trees

	N	n	%
Lack of seedlings	115	84	73
Lack of appropriate species	115	29	25
No reason at all	115	2	2

The above figures suggest that the majority of people in the area would plant trees but have no access to seedlings. This observation is reinforced by the response to the question of whether the farmers would like to plant trees in the future. 104 respondents (90%) indicated interest while only 11 were not, giving no specific reason. Indicated species preference was as follows:

Table 13
Species preference

	N	n	%	Comments
Fruit trees	115	88	76	Mango, guava, papaya
Indigenous species	115	75	65.2	Acacias, cordia, etc.
Eucalyptus	115	59	51	
Chat	115	5	4.3	
Fodder trees	115	4	3.5	
Coffee	115	3	2.6	

The very high preference for fruit trees may suggest a felt need, either for food or as cash crop. It is not clear at this stage why indigenous species feature prominently on the priority list except that it may be a reflection of what farmers are more familiar with. Eucalyptus also featured prominently, suggesting need for fuelwood and poles. The mention of fodder trees by only 3.5% of the people may

suggest little knowledge or appreciation of trees as fodder crops. Coffee and Chat are cash crops meant for the market.

Knowledge about environment

Contrary to popular belief, peasants understand very well the relationship between environment and agricultural production. For centuries, they have been practising different conservation techniques adaptable to the farming system. Deforestation and soil erosion continue in spite of traditional soil and water conservation because of insecure land tenure, lack of government support, legal insecurity about ownership and harvesting of trees, and inadequate pricing and marketing policies.

Table 14
Causes of deforestation and soil erosion

Reasons	Per cent
Land shortage	65.0
High population growth	93.0
Cultivate steep slope	23.0
Over-grazing	30.0
Over-cultivation	55.0
Cutting trees for fuelwood	55.0
Bush fire	15.0

When asked to identify major causes of deforestation and soil erosion, 98 per cent of the peasants mentioned high population growth which put pressure on land subdivision. Other responses were land shortage, cutting trees, over- cultivation, overgrazing, cultivating steep slopes, and bush fire.

Table 15
Soil conservation measures employed in the past

Type of measures	(N=115)	Per cent
Terracing	113	98
Alley cropping	80	70
Inter-cropping	56	49
Contour ridging	14	12
Tree growing	10	9

Peasants were asked to identify the types of soil and water conservation they had employed in the past. While 98 per cent reported that they had done terracing, 70 per cent said that they had used alley cropping techniques on their farm. 49 per cent also reported to have used inter-cropping techniques. Only 9 per cent reported to have grown trees on their farm for soil and water conservation purposes.

Peasants, however, expressed great interest in growing more trees or building better terraces in future, if the government provided incentives. When asked what they would like to do in future to conserve natural resources, 90 per cent said they wanted to grow more trees to meet energy and construction needs, as well as for conservation. 81 per cent expressed interest in acquiring knowledge and assistance to build terraces, while another 40 per cent wished to have access to better energy saving devices to conserve fuel.

Table 16
Why conservation measures were not used

Reasons	(N=115)	Per cent
Did not know	99	86
Lack of Government support	37	32
Insecure land tenure	1	1
Preferences		
Grow more trees	104	90
Build better terraces	93	81
conserve fuel use	46	40

In summary, one can conclude from the baseline survey that peasants failed to grow more trees and employ both traditional and modern techniques of soil and water conservation because of the existence of government policies which worked against them. The lack of extension services, inappropriate pricing and marketing policies, insecure tenure as well as lack clarity with regard to the ownership and management of forests and on farm trees have been a major impediment to the proper management of natural resources. Furthermore, adequate seedling supply and strong technical backup are not readily available to the farmers. Even in situations where the extension personnel were available, they are not supported by the necessary facilities and inputs (implements, polytene bags, seed of good quality, nursery tools and equipment, etc.).

5. Participation without empowerment: Women in rural Fedis

The land reform proclamation of 1975 enhanced peasant participation in the rural areas, but increased political participation has not equally met with improved management of productive resources. This is particularly true for women's organizations. Because women's associations are by legislation situated under PAs, they must compete with PAs for the meagre resources in obtaining credit, farm inputs and services necessary to develop their own income generating activities.

The lack of significant advancement in women's economic position is rooted in the traditional values which delineate the position of women in society. Women's position in society is regarded as secondary to their status in the family under the male headed household. The rationale for structurally placing women's associations under the auspices of the PAs was precisely this traditional perspective. The result has been that women's initiatives have not been taken seriously by the executive committees of peasant associations. This unhappy state of affairs will remain unchanged since there are no indications that policy makers have come to understand the changing role of women outside the family institution. Policy makers we talked to insist that the real problem is "poverty", not "gender". The implication being that if you improve the general welfare of the community, it will result in improved economic resources for women.

5.1 Constraints at the household level

Access to land

All the women interviewed *admitted that they have access* to land. But when asked if that land is registered in their name, 98 per cent of them reported that the land in registered in the name of their husbands. In addition to land, lack of access to productive asset has been a major impediments to women's economic advancement. At the household level, 54 per cent of the respondents said they lacked access tot assets while 58 per cent said lack of education as the major impediment. The impact of this situation on household level decision making becomes obvious.

As the data indicate, 79 per cent of the respondents reported that their husbands have the control over the household income. A mere 16 per cent said they make the decisions on household income. Considering that the population in Fedis is

predominantly Moslem, this latter category of respondents are more than likely single person households headed by widows, abandoned women or older women.

Table 17
Access to land and cultivation responsibility

	Frequency	Per cent
Have access to land:		
Yes	59	100
Registered in your name:		
Yes	1	2
No	58	98
Total	(59)	(100)
Who controls income:		
Husband	45	79
Share	3	5
Myself	9	16
Total	(57)	(100)
Household level problem:	(59)	
Lack of asset	32	54
Patriarchy	6	10
No legal protection	7	11
No education	34	58

Labour allocation

Women in Fedis are hardly better off today than they were before the revolution concerning their household responsibilities and general economic welfare in the society. At times, it looks as if time has stood there for a thousand years. Methods of food preparation, the sources of water and fuelwood, household work responsibilities have changed very little. Women remain as invisible footnotes in the social, economic and cultural life of their respective communities. According to our survey, the average working day for women in Fedis takes 15 hours, excluding childcare.

Table 18
Daily activities of women in Fedis*

Activities	Average hours
Fetching water	4
Collect firewood	6
Food preparation	5
Total	15

Note: * does not include childcare.

When asked to identify the major constraints on their time, 69 per cent of the women said they have too much work to do, while another 29 stressed the unequal division of work within the household. This implies a need for introducing appropriate technology to reduce hardships for women. In fact, 96 per cent welcomed the idea of intermediate technologies to eliminate time constraints. Too many household responsibilities reduce the time available for women to participate in organizations or to engage in other productive employment.

Table 19
Ways to eliminate time constraint

	Frequency	Per cent
Constraint on time:	(N=59)	
Unequal work response	17	29
Too many meetings	5	8
Too much work to do	41	69
Ways to eliminate constraints:		
Eliminate patriarchy	-	-
Improve women's economy	2	4
New technologies	55	96
Total	(57)	(100)

The women interviewed know very well what they would do if they had extra time. While 63 per cent expressed interest to start new business, another 31 per cent would like to go to school and learn new skills. In addition, another 32 per cent wanted to grow more food if they had extra time.

Table 20
How women would use the extra time

	(N=59)	Per cent
Go to school	18	31
Start new business	37	63
Grow more food	19	32
Other	2	3

Decision making in the household

Because of cultural practices, women have very little influence in deciding matters affecting the household. Decisions regarding land use or cropping patterns are determined by the husbands. When asked who makes decisions in the household,

Table 21
Decision making in the household

	Frequency	Per cent
Who makes the decision?		
Husband	48	81
Joint	4	7
Self	7	12
Total	(59	(100)
Cultivation priority:		
Cash crop	4	7
Food crop	55	93
Total	(59)	(100)
Cultivation responsibility:		
Whole family	19	32
Husband	37	63
Self	1	2
Hired labour	2	3
Total	(59)	(100)
How to influence husband's decision:		
None	4	7
Intermediaries	37	63
Consultation	18	30
Total	(59)	(100)

81 per cent of the women said that their husbands make the decision. Only a minority, about 7 per cent reported that household decisions are made jointly. Another 12 per cent said that they decide matters themselves. This last category could include single women.

The majority, or 63 per cent of the respondents, reported that they use intermediaries to influence the decisions of their husbands while another 30 per cent said they resolve differences of opinion through consultation. With regard to cultivation priorities, 93 per cent said that food crops are accorded more importance over cash crops. This decision might have been influenced by the very fact that the area suffers from chronic food shortages and that families adjust their decisions and accordingly make provision in anticipation of a bad spill.

Women and non-farm activities

A high percentage of women in the project area supplement family income from non-farm activities. In our survey, 69 per cent of the respondents reported making additional income by selling firewood while the other 32 per cent derive income from the sale of sisal rope. Also 5 per cent of the respondents reported that they sell water to earn income.

Table 22
Sources of supplementary income

	(N=59)	Per cent
Sell firewood	41	69
Sell sisal rope	19	32
Sell water	3	5
Give income to husband?		
Yes	3	7
No	42	93
Total	(45)	(100)
Spent the money on:		
Feed the family	50	84
Children	31	53

When asked if they would give the money to their husbands, only 7 per cent said they would. The majority, 93 per cent, reported that they would not give the money they earned from non-farm activity to their husbands. With regard to the use of the money, 84 per cent reported that they would spend it on food. Another

53 per cent said that they would spend the money on their children. This information is very useful for policy makers interested in food security and family nutrition. Although the data is not comparative, it implies that supporting women's economic potential and income-generating activities can have a positive impact on family nutrition since women are more likely to spend their money on the family than men.

Participation in women's self-help groups

In the absence of aggressive government policy to improve the situation of women in rural Ethiopia, the women of Fedis continue to depend on informal associations such as labour-groups, rotating credit associations and funeral associations to increase their economic and social welfare. Although these institutions existed in the past, they have assumed greater importance in recent years as modern government structures continue to alienate large numbers of women and increase their household and community responsibility.

Data from the baseline survey indicate that 98 per cent of the respondents are members of a funeral association while 84 per cent report membership in a labour-sharing group. While funeral associations assist their members in times of death in the family by covering funeral expenses, the labour-sharing group is designed to mobilize labour to cultivate a field, construct houses or harvest grains.

Table 23
Membership in self-help groups

	(N=59)	Per cent
Seek assistance from:		
Relatives	53	91
Women's support group	5	9
Membership in:		
Funeral associations	58	98
Labour groups	50	84
Why join informal groups?		
Focus on women issue	53	90
Efficient	3	5
Dependable	14	24
Influence on formal organizations?		
Yes	2	3
No	57	97

When asked why they joined informal groups, 90 per cent of the respondents reported that traditional associations focus more on women issues than the formal organizations such as the peasant associations. Almost 24 per cent of the respondents also reported that traditional institutions are dependable and efficient. Despite their importance to the economic welfare of rural women, these institutions have no direct or indirect contact with the formal organizations. Almost all the respondents reported that informal organization have no influence on the decisions of peasant associations or other government structures.

5.2 Institutional constraints

Weak women's organizations

Table 24
Participation in formal organizations

	(N=59)	Per cent
Member of REWA?		
Yes	53	93
No	4	7
Total	(579)	(100)
Go to REWA meetings?		
Always	16	30
Sometimes	36	67
Never	2	3
Total	(54)	(100)
REWA influence on PA's:		
None	48	94
Some	3	6
Total	(51)	(100)
Women leaders in PA executive committees?		
Yes	4	14
No	25	86
Total	(29)	(100)
Impediments to women's participation:		
Men dominate	16	27
No time	35	59
Cultural practices	9	15
Women issue not taken seriously	2	3

In the project area, 93 per cent of the women are members of the local branches of the Revolutionary Ethiopian Women's Association (REWA). While 30 per cent of the members reported that they always go to the meetings, a high proportion, 67 per cent said that they go to meetings sometimes. The reasons for low involvement in the association is explained by the fact that 94 per cent of the women in the survey believe that REWA has no influence in the economic, cultural or social life of their villages. This assessment is confirmed by the fact that 86 per cent of the respondents reported that there are no women leaders in the Executive Committees of their respective peasant associations.

When asked to identify the major impediments to women's participation, 59 per cent of the women stated that they have no time because they are burdened with household drudgery. Another 27 per cent stated that men dominate the local level institutions and that they are not supporting women's participation in public. The remaining 15 per cent of the respondents said that cultural practices (in a predominantly Muslim society) prevent women from participating in local organizations.

Agricultural extension and training

An important constraint to women's economic advancement in rural areas involves lack of access to productive assets. Even when women have access to land, agricultural extension services are either inadequate or do not address the needs of rural women. The number of development agents (DA) are limited in Fedis awraja and existing staff does very little to reach out to women farmers. Almost

Table 25
Women and agricultural extension

	(N=59)	Percentage
Seek advice from:		
Friends	3	5
Elders/PA leaders	26	44
Extension agents	35	59
Visited by DA:		
Frequently	1	2
Rarely	36	88
Never	4	10
Total	(41)	(100)
Whom do DA listen to most:		
Husband	46	100

88 per cent of those who responded said that they are rarely visited by an extension agent. The general assumption is that the men in the household do the farming and that women have no productive role.

Much discrimination is also observed when agricultural education and training are offered. Most educational programs organized for women are biased in favour of home economics, while other agricultural courses, like crop production and protection, animal husbandry, farm management, etc. are offered only to men. In summary, it appears that the situation of women has not shown any substantial improvement. Access to economic resources, training, extension and credit are largely limited.

Table 26
Alternatives suggested by Fedis women

	(N=59)	Per cent
What Government should do:		
Improve services	59	100
Training	6	10
Improve employment	9	15
Family planning	1	1
Other	5	8
Steps women should take:		
Strengthen coops	9	15
Upgrade skills	22	37
Build on existing knowledge	45	76
Other	2	3

Not surprisingly, the women in Fedis have a clear idea as to what should be done to alleviate their economic and social problem. When asked to identify what the government should do, 100 per cent of the respondents want to see improved services in their villages. While 15 per cent identified the need to improve employment opportunities for women, another 10 per cent want to see more training opportunities for women. Only 1 per cent of the women talked about the need for family planning programmes in the area. This low response is not surprising considering the fact that the predominant religion in the area, Islam, rejects the idea of family planning.

While government support is necessary to improve the economic position of women in rural areas, the women interviewed understand very well that their own local initiatives are the most reliable form of group insurance against hunger and malnutrition. When asked what steps they should take by themselves to improve their economic lot in society, 76 per cent of the respondents expressed the importance of building development based on existing knowledge. Another 37 per cent of the respondents want to see measures to upgrade the skill levels of women. Only 15 per cent talked about strengthening their local level cooperatives.

6. Towards a conservation-based agricultural development

This study has shown that Fedis Awraja has experienced severe ecological degradation, thus hampering sustainable agricultural and livestock production. As the supply of wood for fuel and construction declined drastically, there has been a corresponding increase in the use of animal dung and agricultural residues for fuel and construction purposes. The result of this twin process has been that agricultural fields are deprived of vegetation cover and important sources of manure. This in turn exacerbates the vicious circle of low agricultural output which forces people to exploit marginal lands.

As more marginal land is brought under crop cultivation to feed a growing population, the carrying capacity of the land relative to the number of livestock is reduced significantly, making it difficult to sustain an environmentally sound agricultural system. Intensive grazing simply inhibits the regeneration of vegetation cover so important for soil and water conservation.

Because of the interrelationship between deforestation, soil erosion and low agricultural productivity, these problems can only be tackled by integrating them into every aspect of agricultural development activity. A compartmentalized conservation approach is inadequate to solve such multi-dimensional and multi-sectoral problems. While technical components are easy to formulate, *creating and enabling policy environment* remains the most important challenge facing the new government. The biggest challenge in Ethiopia has always been *how to make the public sector more responsive to the needs of small farmers* who need government support in the area of credit, inputs, markets and fair prices in order to succeed. The key elements that should be included in a conservation-based agricultural development strategy are the following:

1. Peoples Participation and Local control: In the action area of forestry, land use and agricultural production, there are several issues that must be considered: people's role in planning and decision making sharing programme responsibility and benefits. Until the demise of the brutal Mengistu dictatorship in May 1991, political structures in Ethiopia were never conducive to people's democratic participation in the development process. As the information in this report clearly indicates, decision making from local to national levels under the previous government tended to be top-down, and local level organizations, such as the peasant associations, always waited for directives to come down from the top rather than mobilizing people at the grassroots level. *Until local populations are*

given the right to manage their own affairs, with support from the central administration, agricultural production will continue to stagnate and the resource base will continue to erode.

2. Security of land tenure: The most important disincentive to conservation-based agricultural transformation in Ethiopia remains to be lack of security of land as well as ownership of trees and forests. Since farmers have no long term guarantee on the use or control of the land they farm, there is not much incentive to make long-term investment on the land. The new government need to clarify, through legislation, the legal rights and duties of individual farmers with regard to the use of land, trees and water.

3. Pricing and Marketing Policy: Apart from the tenure and ownership aspects of land, pricing and marketing aspects have an influence in stimulating agricultural production and conservation of natural resources. In order that peasants have adequate incentive to grow trees and grow more food, marketing and price policies should be liberalized so as to reward producers. The provision of increased access to consumer goods and credit the establishment of flexible pricing for farm produce should be emphasized.

4. Improved infrastructure and social services: An important constraint identified by the peasants to agricultural production and resource conservation is the lack of extension personnel. As outlined in the previous chapters, the number of development agents in the Awraja is inadequate and their role is multi-function, doing less on agriculture and more on administration and tax collection. Given this experience, it is incumbent upon the new government to improve the outreach capacity of the Ministry of Agriculture, by strengthening extension networks in the field, developing communication systems, extension manuals and audi-visual materials for the dissemination of information to peasants. A disproportionate number of vehicles are currently being used by central and provincial administrators while extension agents barely have access to a bicycle. This practice must be reversed so that extension agents can carry out their task effectively.

5. Improving the economic position of women: Cultural practices still work as a major impediment to women's participation in the development process. Still, this is not a sufficient reason for inaction on the part of public officials and institutions. As the survey indicated, institutional factors have compounded the negative economic position of women in Ethiopia.

Although the stated objective of the 1975 land and rural institutional reform was the empowerment of people, survey data indicated the dual characteristics of women's position. The 1975 reforms protected the social rights of women through the establishment of women's associations. Yet, political participation has not been translated into increased economic opportunities for women or improved access to productive resources. Future policy should try to resolve this dichotomy by

instituting policy measures that take into account the changing role of women outside the household and not relegate them to a mere appendage to production sectors. Women's access to productive resources can be improved by revising existing legislation which denies married women access to land. Other required actions include: upgrading the capacity of women's organizations, including self-help groups, through training; reorientation of agricultural training and services; and introduction of measures designed to reduce the work burden of women, by improving social services such as water, mills and alternative cooking devices.